

How to change: Mercedes W211 front suspension strut – replacement guide

 VIDEO TUTORIAL

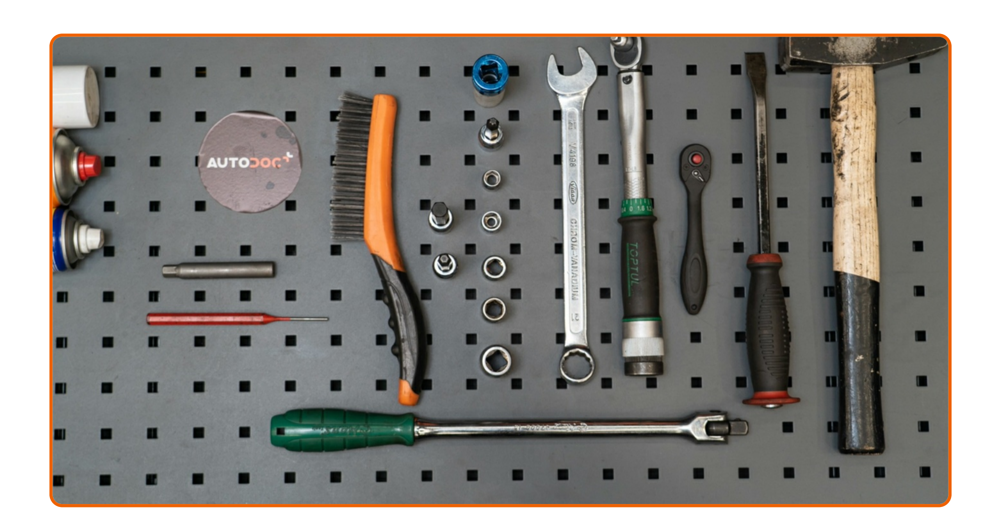
Important!

This replacement procedure can be used for:
MERCEDES-BENZ E-CLASS (W211) E 270 CDI (211.016), MERCEDES-BENZ E-CLASS T-Model (S211) E 270 T CDI (211.216)

The steps may slightly vary depending on the car design.



REPLACEMENT: SUSPENSION STRUT – MERCEDES W211. LIST OF THE TOOLS YOU'LL NEED:



- Wire brush
- WD-40 spray
- Brake cleaner
- Copper grease
- Torque wrench
- Combination spanner #21
- HEX bit No.H6.
- HEX bit No.H12.
- Drive socket # 10
- Drive socket # 13
- Drive socket # 17
- Drive socket # 18
- Drive socket # E18
- Drive socket # 21
- Shock absorber socket #DD6
- Wheel impact socket #17
- Ratchet wrench
- Crow bar
- Hammer
- Pin punch
- Hydraulic strut spring compressor
- Hydraulic transmission jack
- Fender cover
- Wheel chock

Replacement: suspension strut – Mercedes W211. AUTODOC experts recommend:

- Both shock struts of the front suspension should be replaced simultaneously.
- The replacement procedure is identical for the left and right shock struts of the front suspension.
- All work should be done with the engine stopped.

REPLACEMENT: SUSPENSION STRUT – MERCEDES W211. RECOMMENDED SEQUENCE OF STEPS:

1



Open the bonnet.

2



Use a fender protection cover to prevent damaging paintwork and plastic parts of the car.

3



Clean the fasteners of the shock strut upper mount. Use a wire brush. Use WD-40 spray.

4



Loosen the upper fastener of the shock strut mount. Use a drive socket #13. Use a ratchet wrench.

5

Secure the wheels with chocks.

6



Loosen the wheel mounting bolts. Use wheel impact socket #17.

7



Raise the front of the car and secure on supports.

8



Unscrew the wheel bolts.

AUTODOC recommends:

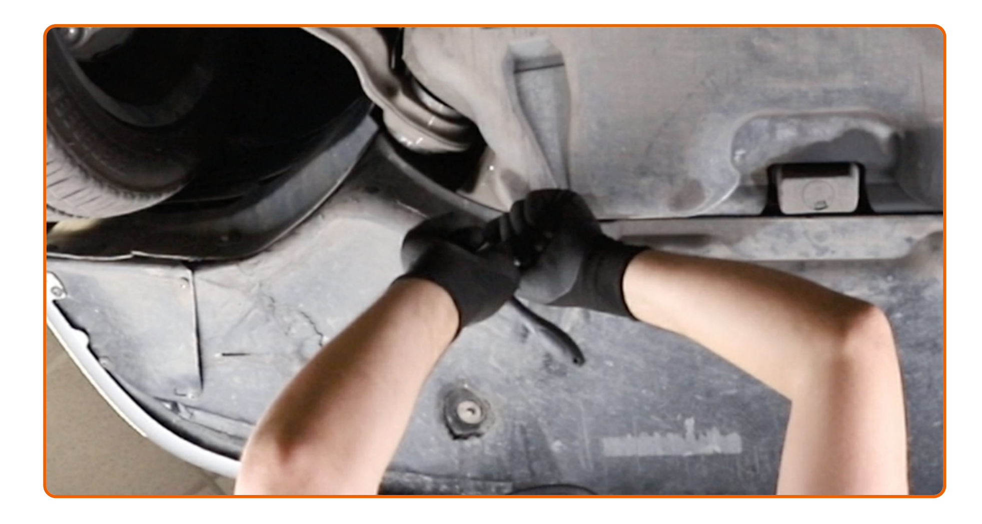
- Warning! To avoid injury, hold the wheel while unscrewing the fastening bolts. Mercedes W211

9



Remove the wheel.

10



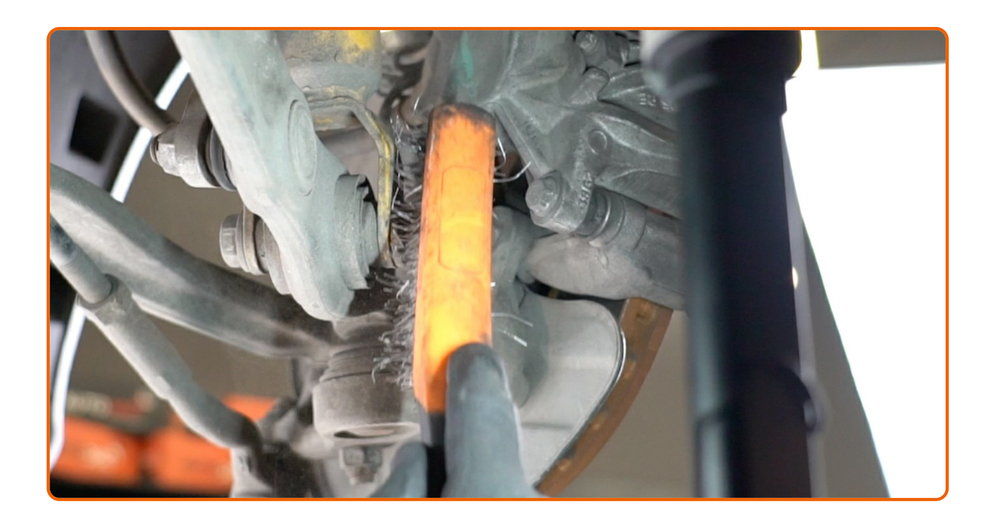
Undo the fasteners of the oil pan lower cover. Use a drive socket #10. Use a ratchet wrench.

11



Remove the oil pan cover.

12

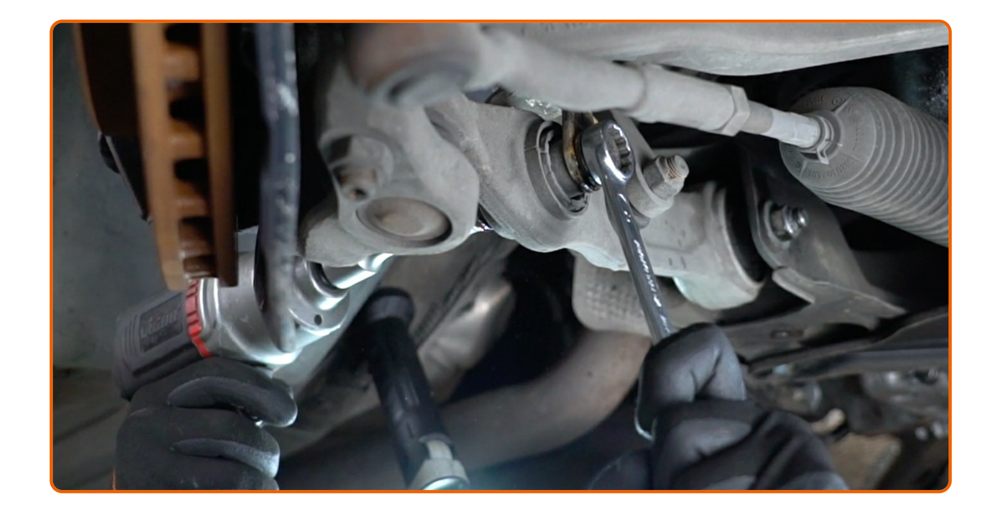


Clean all joints of the arm. Clean the shock strut fasteners. Clean the stabiliser link fasteners. Use a wire brush. Use WD-40 spray.

Replacement: suspension strut – Mercedes W211. Tip:

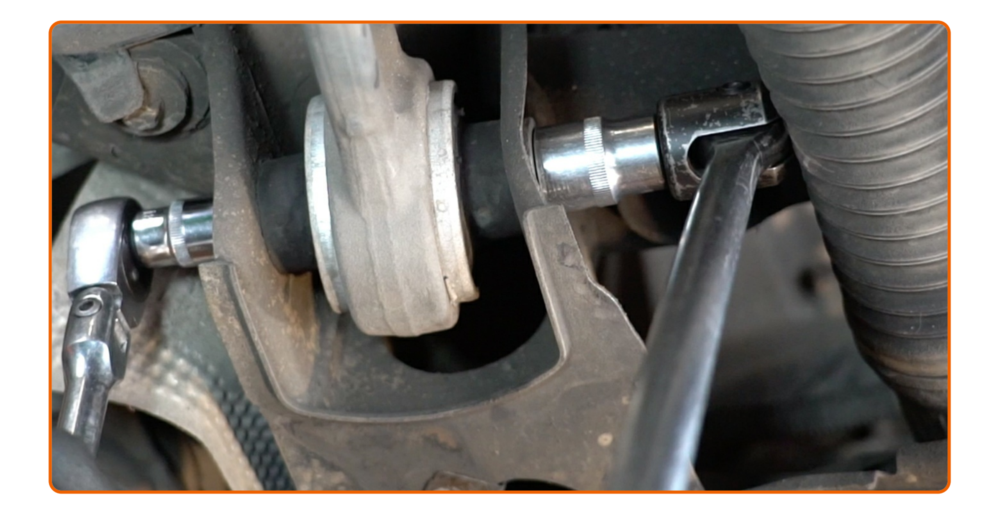
- After applying the spray, wait a few minutes.

13



Unscrew the fastener connecting the shock strut to the suspension control arm. Use a combination spanner #21. Use a drive socket #21. Use a ratchet wrench.

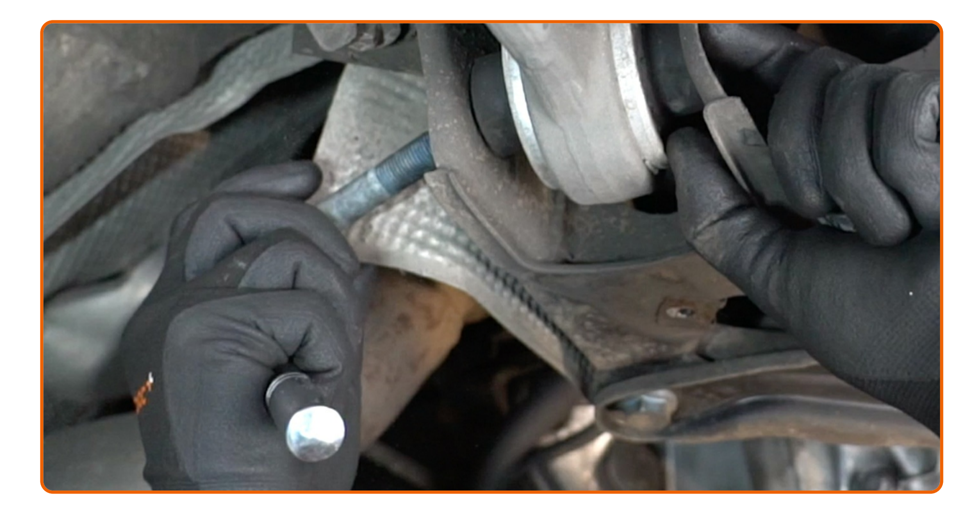
14



Unscrew the arm fastening from the subframe. Use a combination spanner #21. Use a drive socket #E18. Use a ratchet wrench.

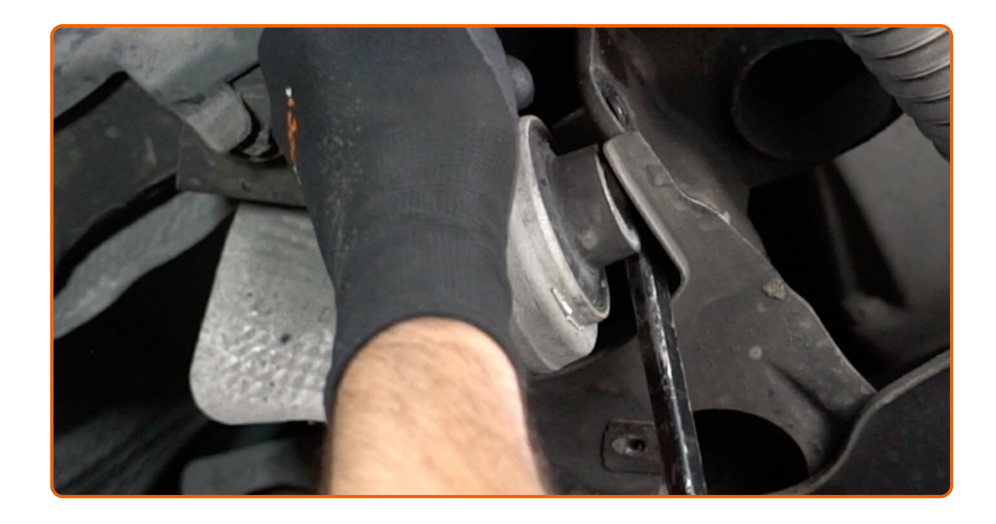


15



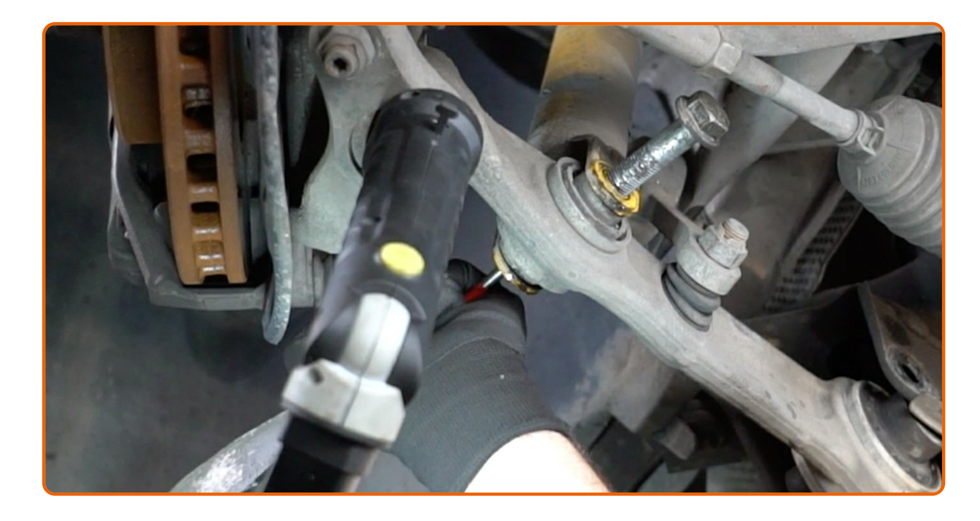
Remove the fastening bolt.

16



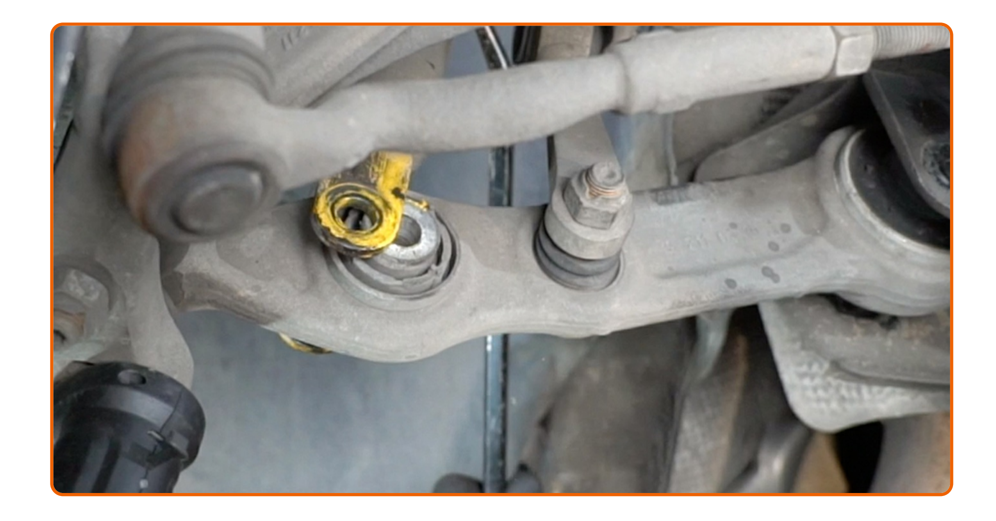
Detach the control arm. Use a crowbar.

17



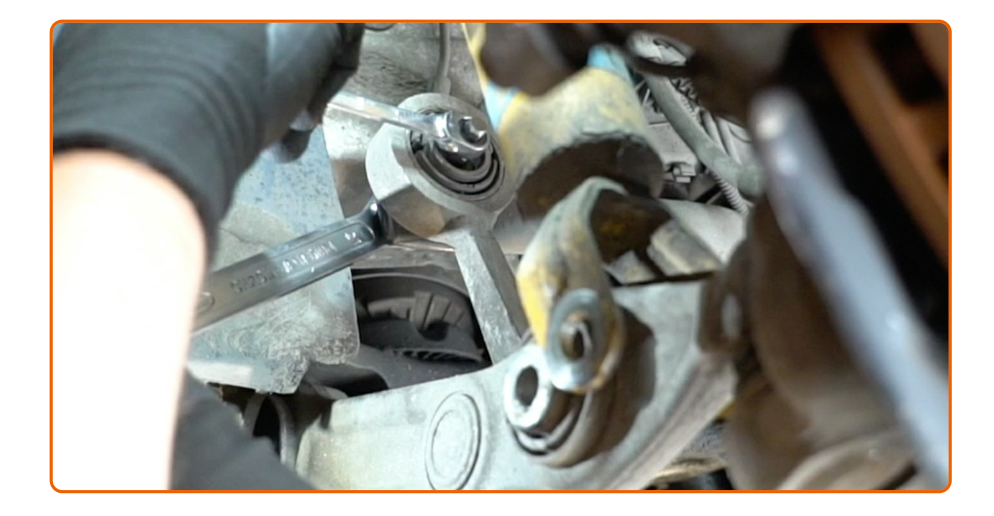
Remove the fastening bolt. Use a pin punch. Use a hammer.

18



Detach the bottom part of the shock strut. Use a crowbar.

19



Unscrew the fastener connecting the stabilizer link to the stabilizer bar. Use a combination spanner #21. Use HEX No.H12. Use a ratchet wrench.

20



Remove the stabilizer rod.

21

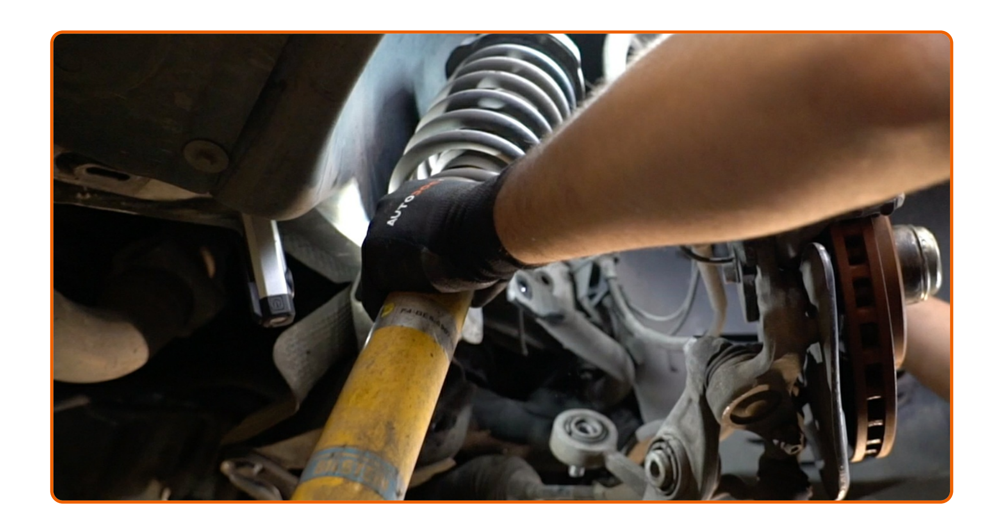


Unscrew the top fastening of the shock strut mount.

AUTODOC recommends:

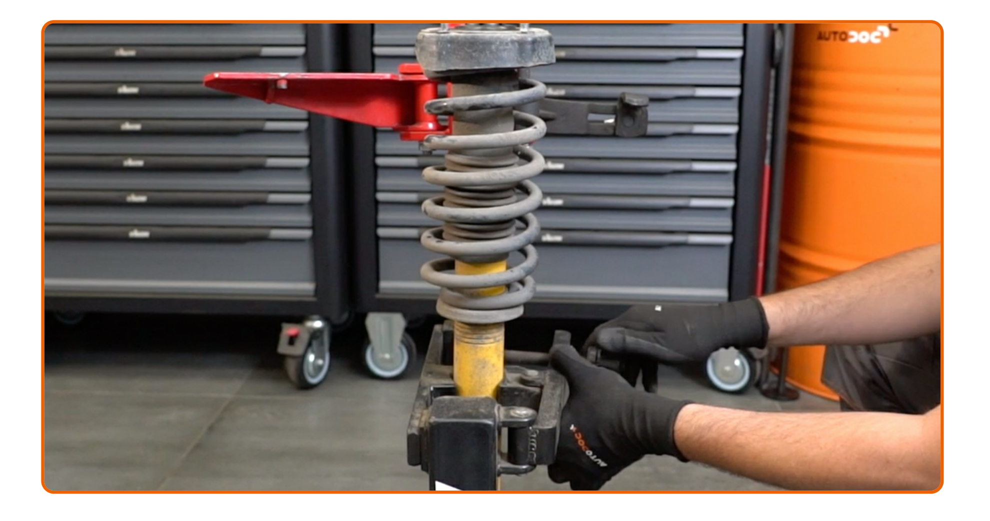
- Important! Hold the suspension strut while unscrewing the fastening bolts. Mercedes W211

22



Remove the suspension strut.

23

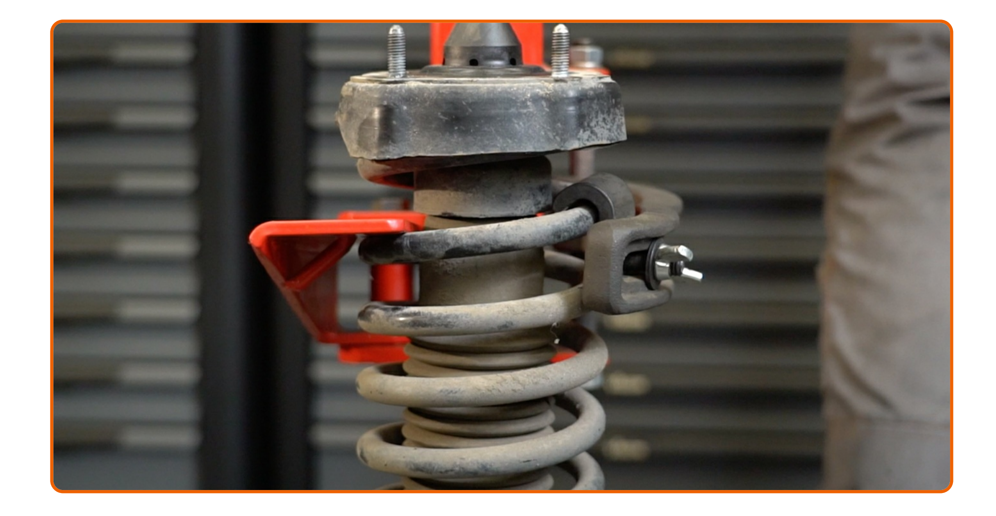


Set the shock absorber strut on the spring compressor tool.

Replacement: suspension strut – Mercedes W211. Professionals recommend:

- Note that when using a spring compressor, spring coils need to be securely gripped, compressing the spring on the opposite sides.
- Ensure the correct position of the spring in the retainer.
- Make sure that the spring coils tightly entered the lock handles.

24

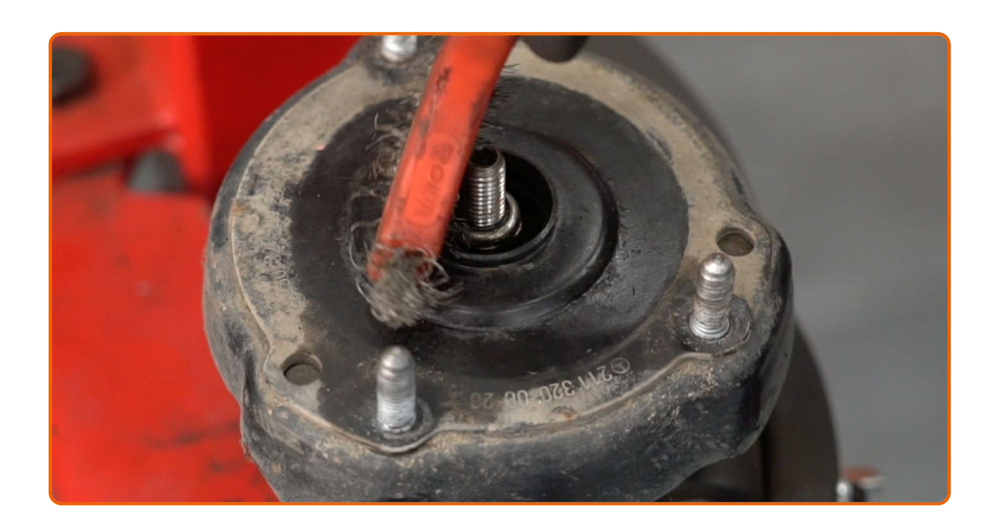


Compress the spring.

25

Remove the protective cap of the shock absorber mount.

26



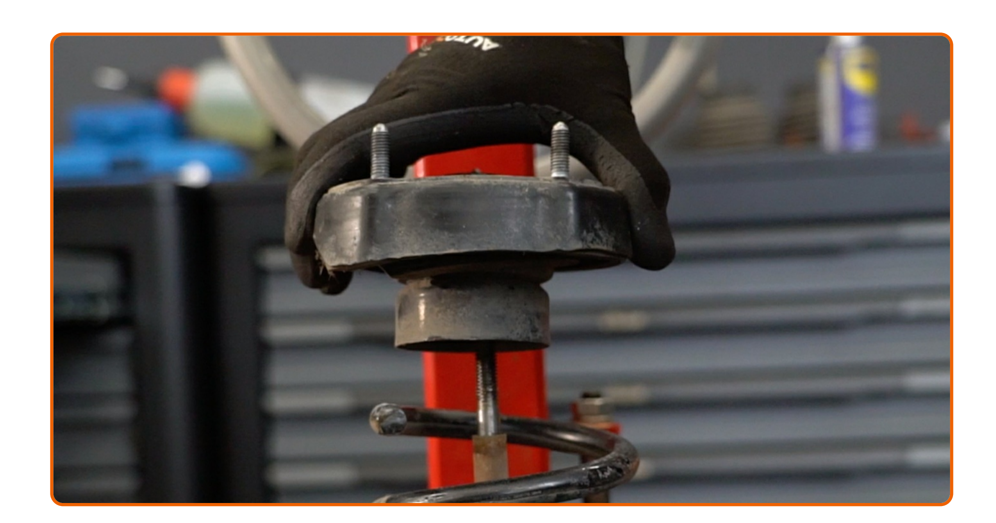
Treat the shock strut rod. Use a wire brush. Use WD-40 spray.

27



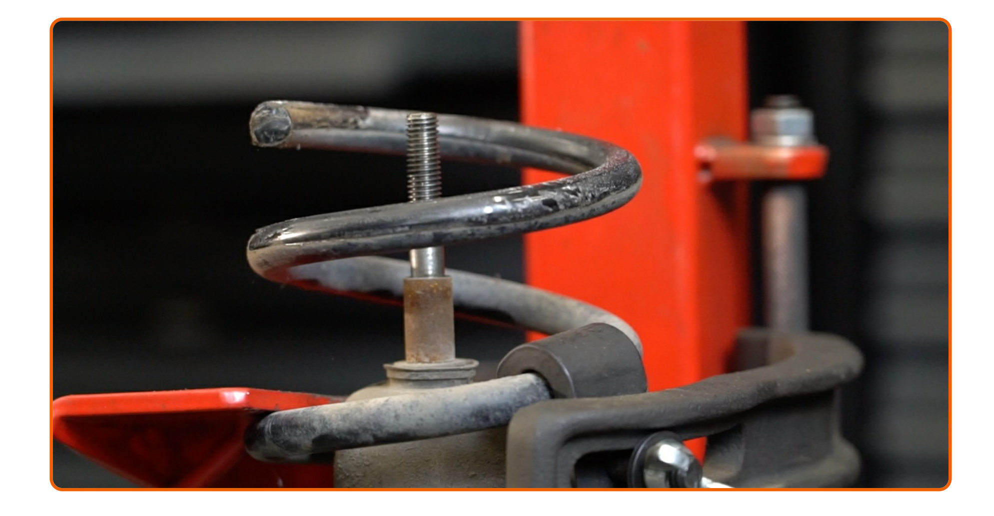
Remove the strut piston rod nut. Use a drive socket #17. Use HEX No.H6. Use a ratchet wrench.

28



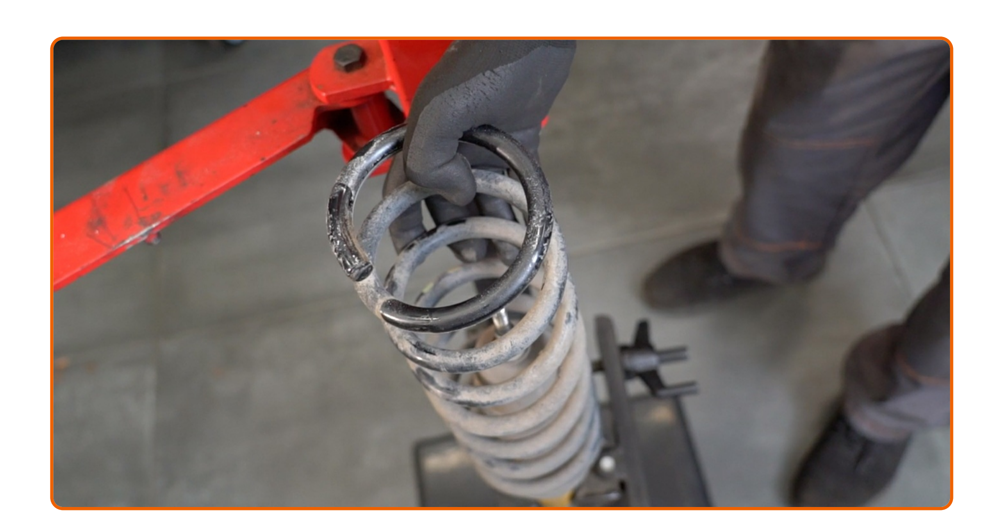
Remove the top strut mount.

29



Release the coil spring.

30



Remove the spring.

31



Remove the shock absorber dust cap and the bump stop.

AUTODOC recommends:

- Replacement: suspension strut – Mercedes W211. Carefully inspect the mount, the boot, and the bump stop of the shock absorber. Replace if necessary.

32



Remove the old shock absorber from the hydraulic coil spring compressor.

Replacement: suspension strut – Mercedes W211. AUTODOC experts recommend:

- Before installing a new shock absorber you should pump it manually 3-5 times.

33



Install the new shock absorber on the hydraulic coil spring compressor.

34



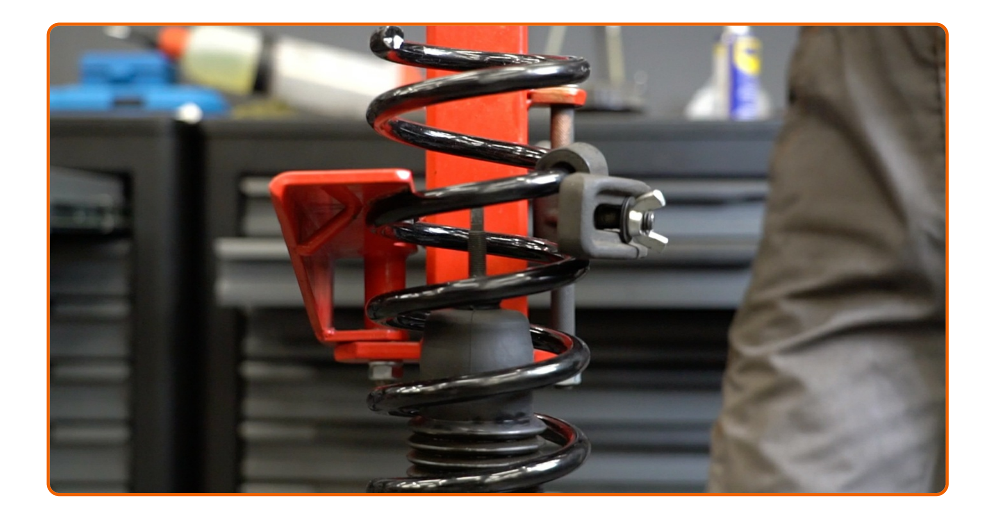
Install the dust sleeve and the bump stop on the new shock absorber.

35



Install the spring on the shock absorber.

36



Compress the spring.

37



Install the upper strut mount and the strut mount bearing.

38



Tighten the shock strut piston rod nut. Use a shock absorber socket #DD6. Use a drive socket #18. Use a torque wrench. Tighten it to 58 Nm torque.

Replacement: suspension strut – Mercedes W211. AUTODOC experts recommend:

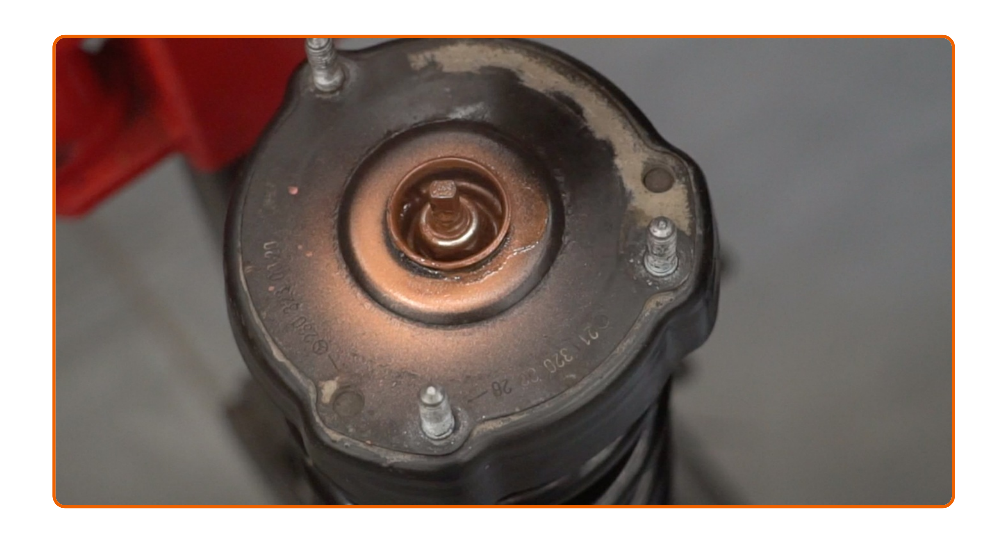
- Check to make sure the spring is positioned correctly. Avoid its misalignment.

39



Decompress the spring.

40



Treat the shock strut rod. Use copper grease.

41

Install the protective shock absorber mounting cap.

42



Remove the assembled shock strut.

43



Clean the mounting seats of the shock strut.

44

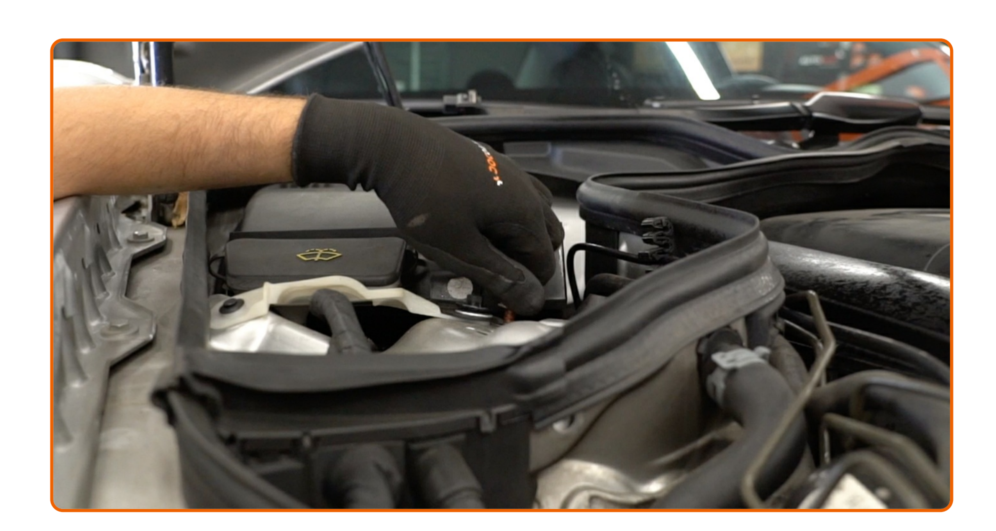
Clean the mounting seats and the thread of the suspension arm. Use a wire brush. Use WD-40 spray.

45



Install the shock strut into the wheel arch.

46

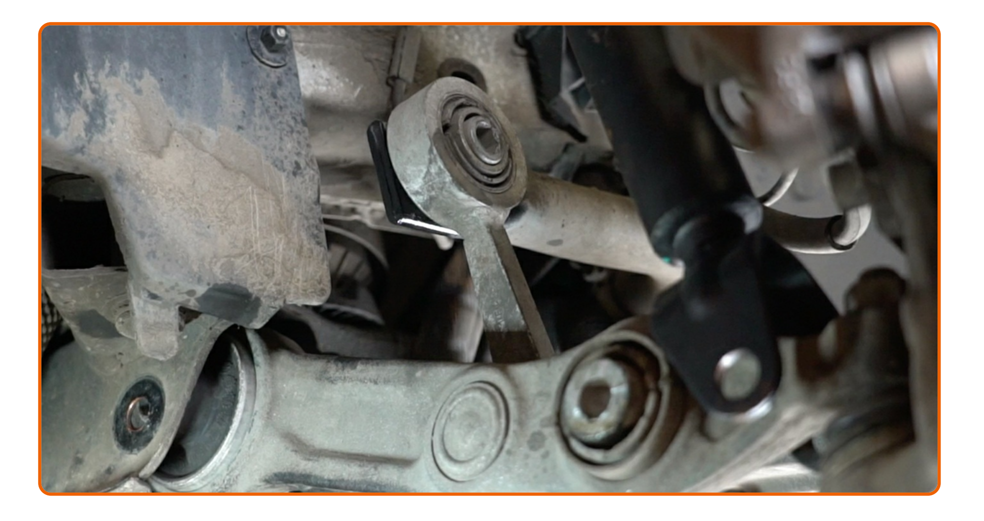


Screw the top fastening of the shock strut mount.

AUTODOC recommends:

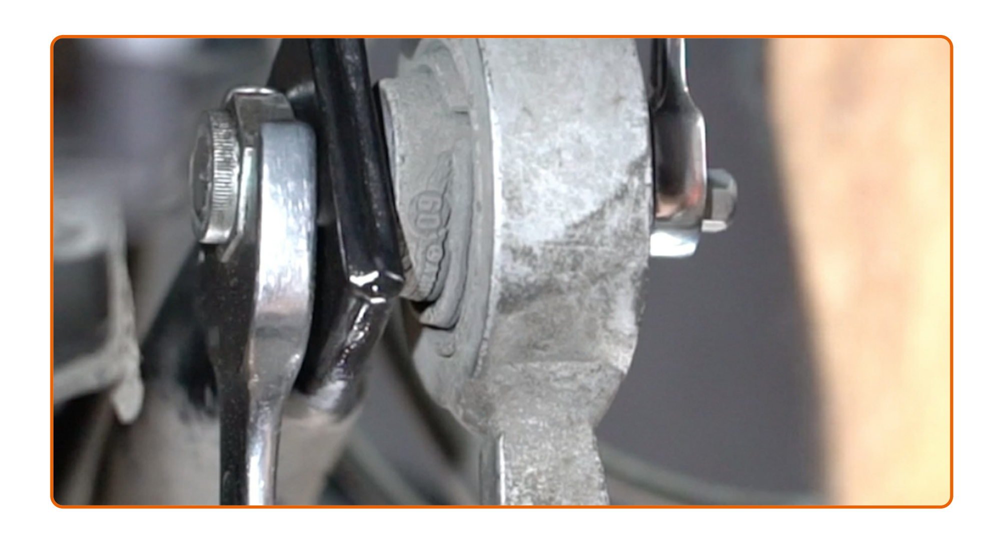
- Important! Hold the suspension strut while screwing in the fastening bolts. Mercedes W211

47



Install the transverse stabilizer link.

48



Tighten the stabiliser link fastener. Use a combination spanner #21. Use HEX No.H12. Use a ratchet wrench.

49

Attach the bottom part of the shock strut.

50



Install the fastening bolt.

51

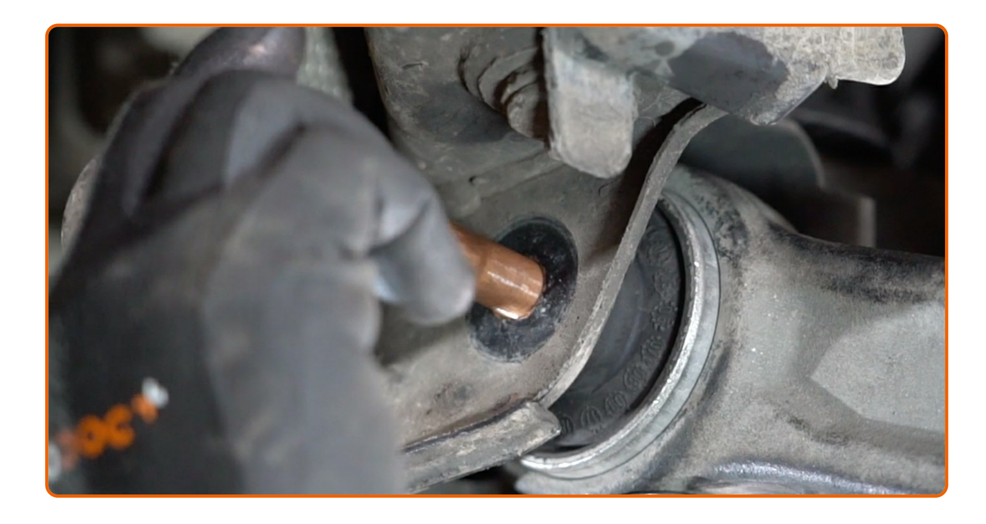
Attach the control arm.

52



Support the arm. Use a crowbar. Use a hydraulic transmission jack.

53



Install the fastening bolt.

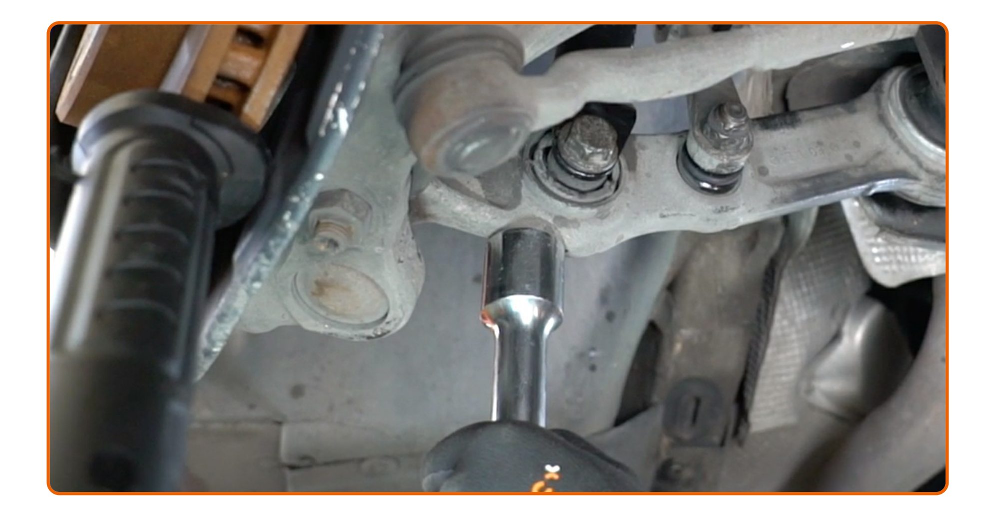
54

Remove the support from under the arm.

AUTODOC recommends:

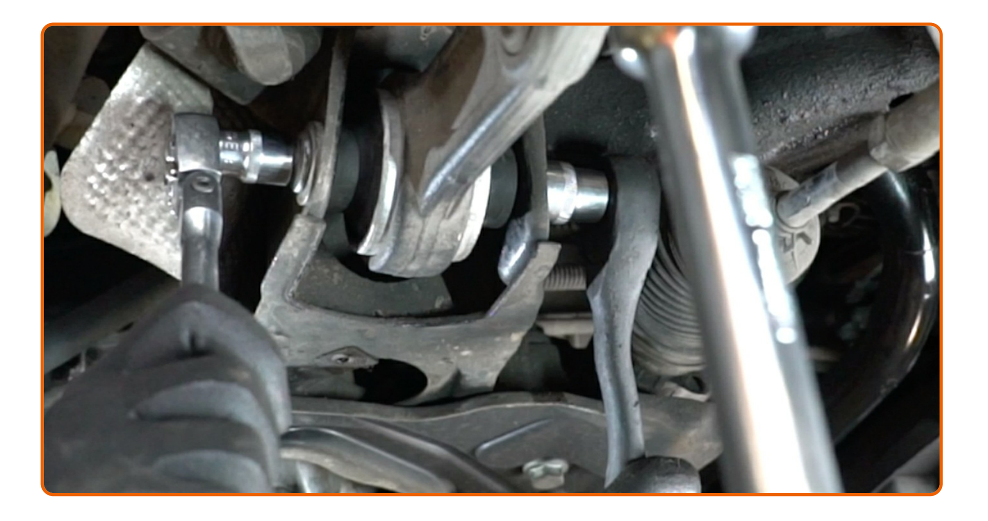
- Replacement: suspension strut – Mercedes W211. Lower the transmission jack smoothly, without jerks, to avoid damaging components and mechanisms.

55



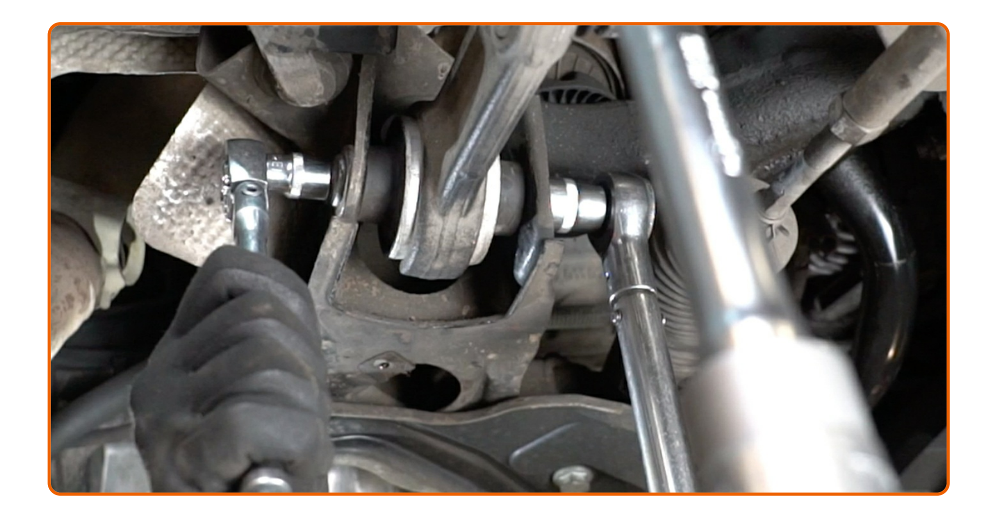
Support the arm. Use a hydraulic transmission jack.

56



Screw the fastener connecting the control arm to the subframe. Use a combination spanner #21. Use a drive socket #E18. Use a ratchet wrench.

57



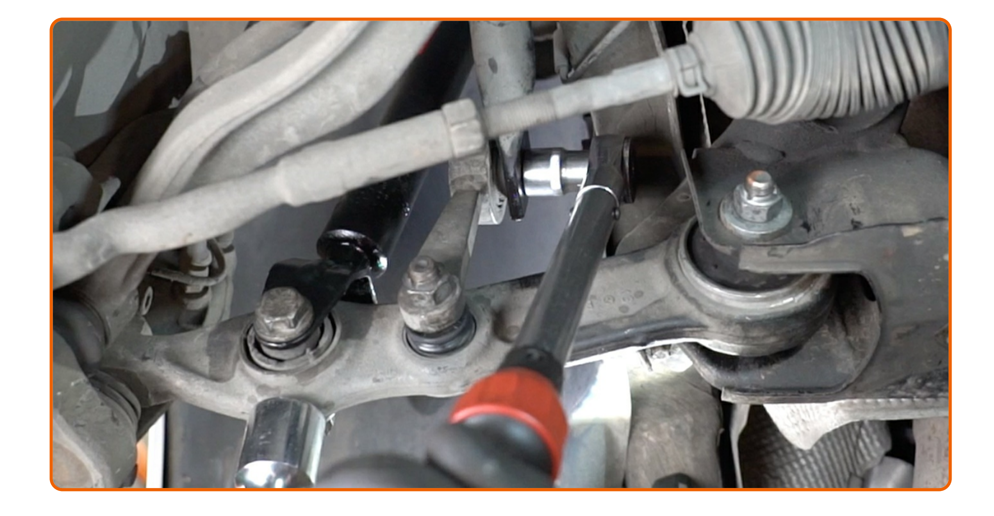
Tighten the arm fastening to the subframe. Use a combination spanner #21. Use a drive socket #E18. Use a torque wrench. Tighten it to 76 nm torque.

58



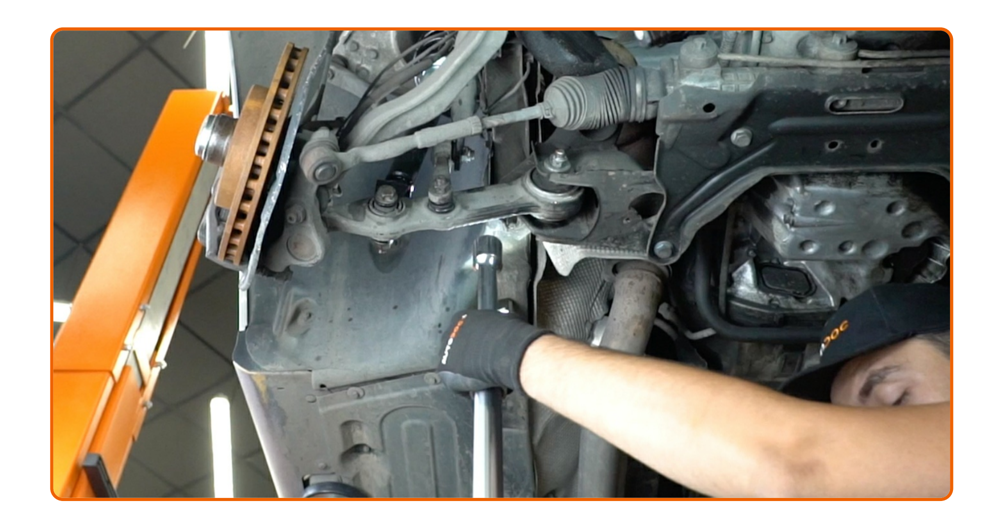
Tighten the fastener connecting the shock strut to the suspension control arm. Use a combination spanner #21. Use a drive socket #21. Use a torque wrench. Tighten it to 82 Nm torque.

59



Tighten the fastener connecting the stabilizer link to the stabilizer bar. Use a drive socket #21. Use a torque wrench. Tighten it to 62 Nm torque.

60



Remove the support from under the arm.

AUTODOC recommends:

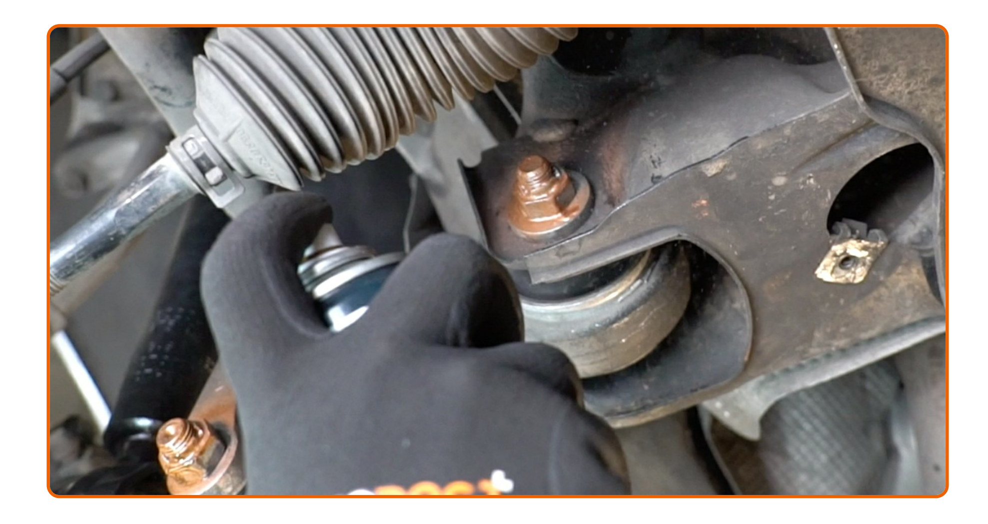
- Mercedes W211 – Do not lower the transmission jack sharply to avoid damaging components and mechanisms of the car.

61



Treat the shock strut fasteners.

62



Treat all joints of the stabiliser link.

63

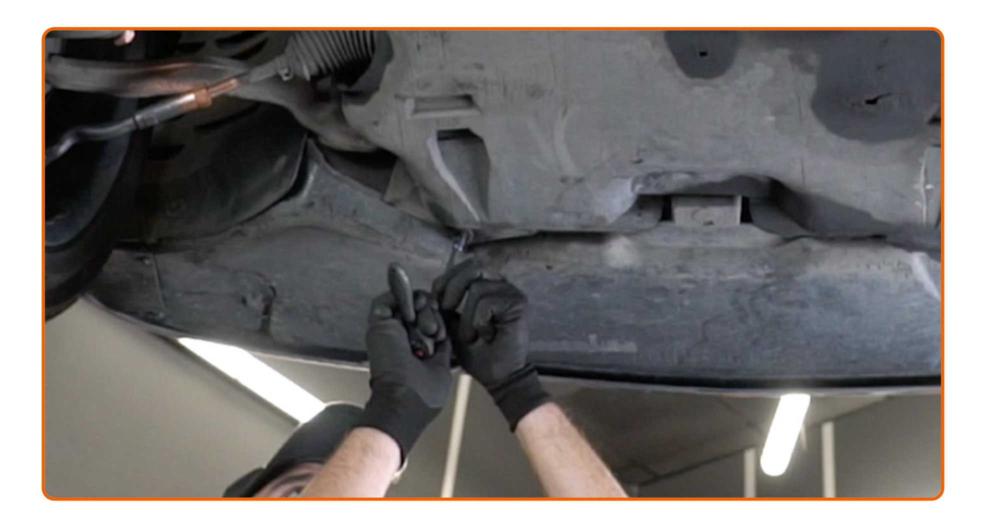
Treat all joints of the arm. Use copper grease.

64



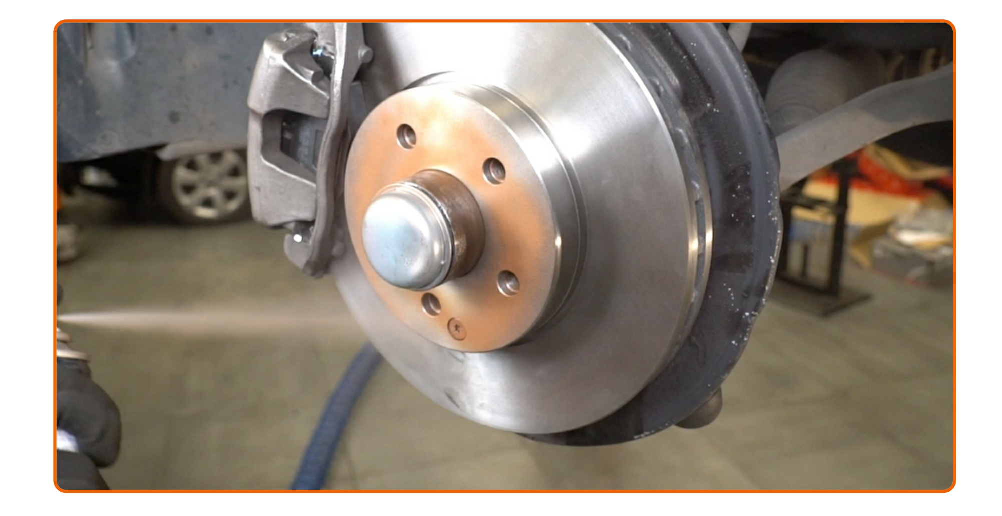
Reinstall the oil pan lower cover.

65



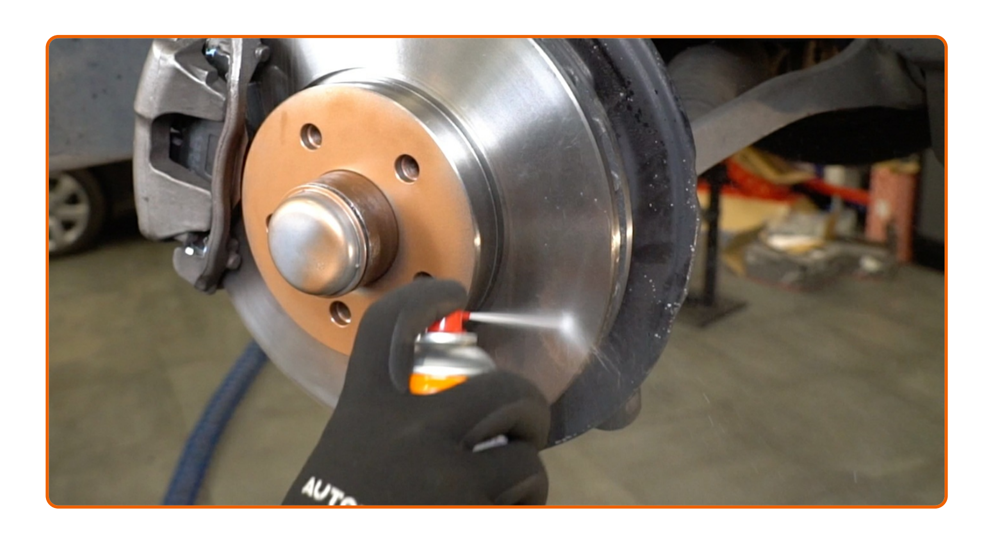
Tighten the fasteners of the oil pan lower cover. Use a drive socket #10. Use a ratchet wrench.

66



Treat the surface where the brake disc contacts the wheel rim. Use copper grease.

67



Clean the brake disk surface. Use a brake cleaner.

AUTODOC recommends:

- Replacement: suspension strut – Mercedes W211. After applying the spray, wait a few minutes.

68



Install the wheel.

AUTODOC recommends:

- Warning! To avoid injury, hold the wheel while screwing in the fastening bolts on the car. Mercedes W211

69



Screw in the wheel bolts. Use wheel impact socket #17.

70



Lower the car and working in a cross order, tighten the wheel bolts. Use wheel impact socket #17. Use a torque wrench. Tighten it to 120 Nm torque.

71



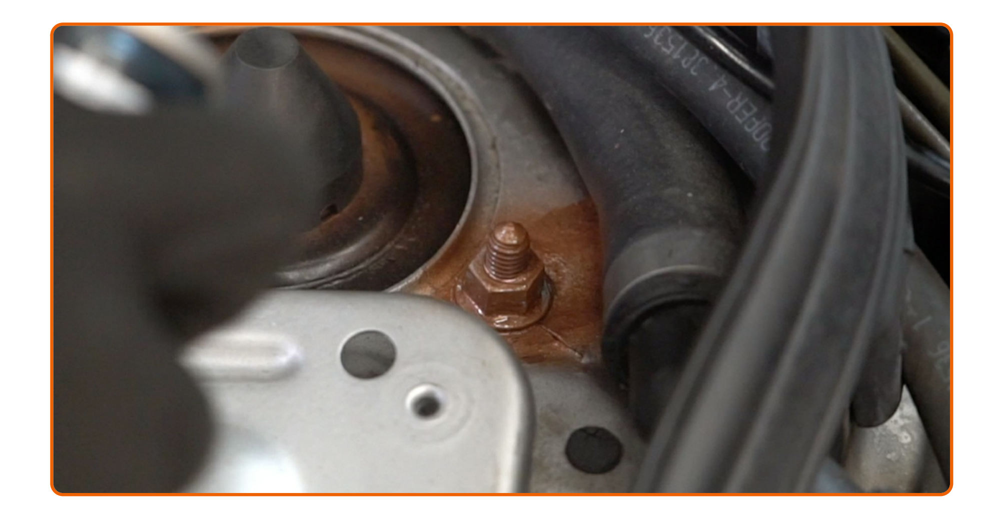
Remove the jacks and chocks.

72



Tighten the upper fastener of the shock absorber strut mount. Use a drive socket #13. Use a torque wrench. Tighten it to 37 Nm torque.

73



Treat the fasteners of the shock strut mount. Use copper grease.



74



Remove the fender protection cover.

75



Close the hood.

DID YOU FIND THESE INSTRUCTIONS HELPFUL?

YES

NO

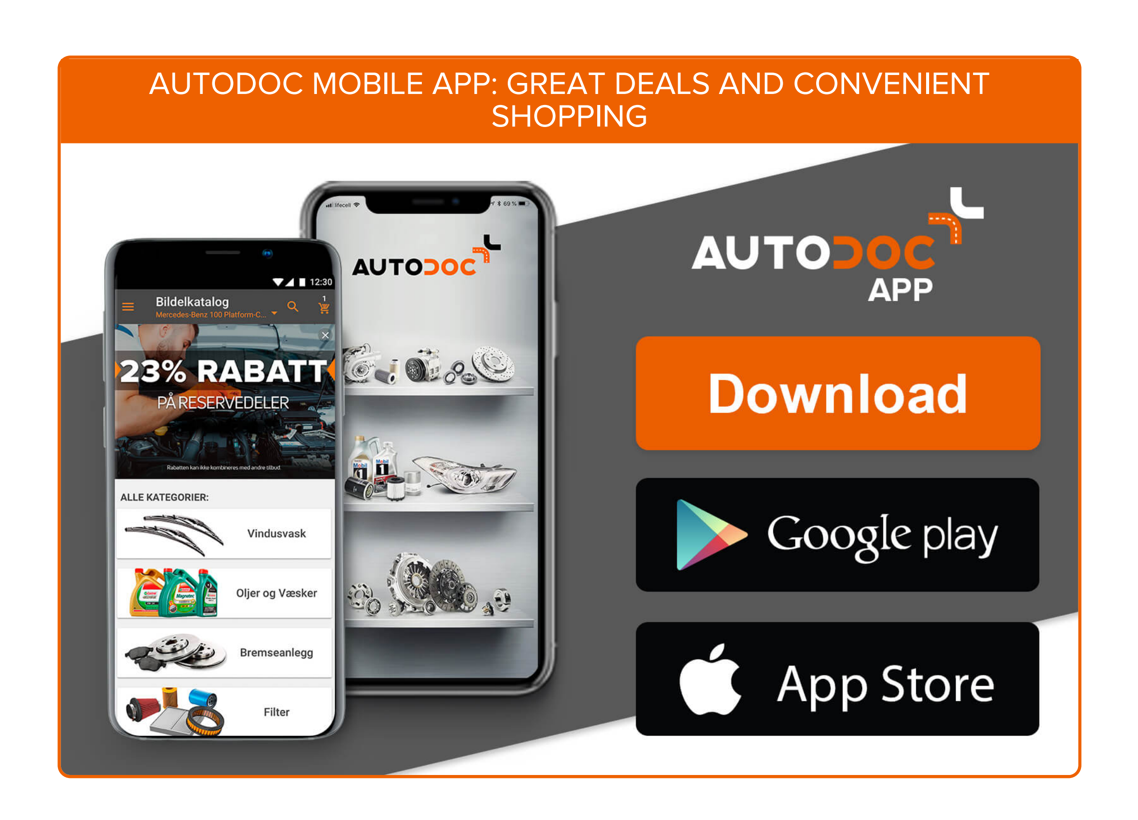


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